

Remarks

In the specification, paragraph [0027] has been amended to correct an obvious typographical error.

Claims 1-5 and 8-22 are pending. Claims 6 and 7 are canceled in this amendment. Applicant has amended claim 1 to state that the lecithin product, comprises phospholipids of up to about 75 wt.% of total dry matter wherein the phospholipids have a phosphatidyl-choline (PC) content is from 9 wt.% to 24.5 wt.% of total dry matter, a phosphatidyl-ethanolamine (PE) content of from 19.6 wt.% to 23 wt.% of total dry matter, and a phosphatidyl-inositol (PI) content of from 4 wt.% to 15 wt.% of total dry matter. Support for this amendment can be found in Examples 1 to 4. Claim 5 is amended from an independent claim to a dependent claim. Support for this amendment can be found in paragraph [0036].

Applicant gratefully acknowledges the withdrawal of claims 16 and 21 under 35 U.S.C. §112, second paragraph, Claims 1-4 under 35 U.S.C. 102(b) as being anticipated by Losch et al. (U.S. Patent No. 5,310,734), and claim 5 under 35 U.S.C. 102(b) as being anticipated by Pardun (U.S. Patent No. 3,661,946).

Rejection under 35 U.S.C. §102

Claims 1-3 and 5 were rejected under 35 U.S.C. 102(b) as being anticipated by Umeda et al. (U.S. Patent No. 5,833,858) as further evidenced by the Merck Index.

Umeda et al. teach a method for highly concentrating acidic phospholipids from lecithin by solvent fractionation. As shown in col 5 lines 35-45,

The acidic phospholipids contained in the acidic phospholipid concentrate obtained by the method of the present invention include phosphatidylinositol (PI), phosphatidic acid (PA), phosphatidylserine (PS) and lysophosphatidic acid (L-PA). Although these acidic phospholipids may be contained each at an arbitrary ratio, it is particularly preferable that the total content of PA and PI is 45% or more, still preferably 50% or more, based on the total phospholipids (i.e., the sum of the neutral phospholipids and the acidic phospholipids).

In Table 2 of Umeda et al., Material 1 and Material 2 are starting materials for the Comparative Examples 1-4. The PE content of Material 1 is 16.2 and the PE content of Material 2 is 24.1. The PE content of present claim 1, as amended, is 19.6-23.

Further, in Table 3 of Umeda et al., The PC, PE, PA, PI and sum of PA and PI are given. In the present claim 1, as amended, a lecithin product has phospholipids of up to about 75 wt.% of total dry matter wherein the phospholipids have a phosphatidyl-choline (PC) content of from 9 wt.% to 24.5 wt.% of total dry matter, a phosphatidyl-ethanolamine (PE) content of from 19.6 wt.% to 23 wt.% of total dry matter, and a phosphatidyl-inositol (PI) content of from 4 wt.% to 15 wt.% of total dry matter. Their ranges are shown below and are compared, where given, to the PC, PE, PA, PI and sum of PA and PI of claim 1, as amended

	Umeda et al.	Present Claim 1
PC	0.3-0.7	9-24.5
PE	8.2-19.5	19.6-23
PA	23.5-28.5	----
PI	28.8-38.3	4-15
PA + PI	58.4-64.1	----

Clearly, present claim 1, as amended that delineates the PC, PE, and PI ranges, are outside the PC, PE, and PI ranges of Table 3 of Umeda et al.

As stated in M.P.E.P. §2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Since Umeda et al. in Table 2 fail to disclose the PE content, as required by present claim 1, as amended, Umeda et al. fail to disclose each and every limitation of amended claim 1. Since Umeda et al. in Table 3 fail to disclose the PC, PE, and PI ranges, as required by present claim 1, as amended, Umeda et al. fail to disclose each and every limitation of amended claim 1. As such, claims 1-3 and 5 is novel over Umeda et al. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

Rejection under 35 U.S.C. §103

Claims 1-5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Umeda et al. (U.S. Patent No 5,833,858) as further evidenced by the Merck Index alone or in view of Losch et al. (U.S. Patent No. 5,310,734).

Umeda et al., as discussed above, teach an acidic phospholipid wherein the phosphatidylcholine (PC) content is from 0.3-0.7. Losch et al. relate to a phospholipid composition wherein the phosphatidylcholine (PC) content is at least 80% by weight. Present claim 1, as amended, is directed to a phospholipid product having a phosphatidylcholine (PC) of from 9 wt.% to 24.5 wt.%.

One would not read the teachings of Umeda et al. alone wherein the method is directed to an acidic phospholipid having a very low (PC) content of from 0.3-0.7 or combine the teachings of Umeda et al. with the teachings of Losch et al. wherein the method is directed to a phospholipid composition having a very high (PC) content of greater than 80% to arrive at Applicant's invention wherein the lecithin product has a PC content of from 9 wt.% to 24.5 wt.%.

In order for the Office to show a *prima facie* case of obviousness, M.P.E.P. §2143 requires that the Office must meet three criteria: (1) the prior art reference must teach or suggest all of the claim limitations; (2) there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference, and (3) there must be some reasonable expectation of success. The Office has clearly failed to meet its burden under (1) and/or (2) above, since the teachings of Umeda et al. alone or combined with the teachings of Losch et al. fail to teach or suggest all of the claim limitations of Applicant's claim 1, as amended. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

Claims 6 and 7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kataoka et al. (U.S. Patent No. 6,749,881) in view of Umeda et al. (U.S. Patent No. 5,833,858). This rejection is rendered moot by the cancellation of claims 6 and 7.

Claims 8-22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Pardun (U.S. Patent No. 3,661,946) as further evidenced by the Merck Index.

Claim 8, as amended, is directed to a method for producing an improved lecithin product comprising the steps of:

- (a) providing a crude lecithin material;
- (b) mixing the crude lecithin material with a blend of ethanol and water to form a first mixture;

- (c) retaining solids from step (b);
- (d) mixing the retained solids in step (c) with a blend of ethanol and water to form a second mixture; and
- (e) retaining solids from step (d) and drying the retained solids as an improved lecithin product;

wherein the lecithin product has an acetone insolubles content of more than 72%, and wherein the phospholipids have a phosphatidyl-choline (PC) content of from 9 wt.% to 24.5 wt.% of total dry matter, a phosphatidyl-ethanolamine (PE) content of from 19.6 wt.% to 23 wt.% of total dry matter, and a phosphatidyl-inositol (PI) content of from 4 wt.% to 15 wt.% of total dry matter.


Pardun teaches a process for the separation of phosphatide fractions from mixtures containing them by using a monoglyceride. Examples 1-3 and their attendant tables give choline lecithin (L) and cephalin (C) analyses data. Choline lecithin is the same as phosphatidylcholine (PC) and cephalin (C) is the same as phosphatidylethanolamine (PE). It is noted that none of the reported cephalin results are within the phosphatidylethanolamine range of 21-23. The reported cephalin results are all much lower. One would not look to the teachings of Pardun having low cephalin results to arrive at the present claim 8, as amended, where the phosphatidyl-ethanolamine has a range of 21-23.

In order for the Office to show a *prima facie* case of obviousness, M.P.E.P. §2143 requires that the Office must meet three criteria: (1) the prior art reference must teach or suggest all of the claim limitations; (2) there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference, and (3) there must be some reasonable expectation of success. The Office has clearly failed to meet its burden under (1) and/or (2) above, since the teachings of Pardun fails to teach or suggest all of the claim limitations of Applicant's claims 8-22, as amended, and further that there is no motivation by one of ordinary skill in the art for employing limitations present in Applicant's claims 8-22, as amended, not present in Pardun. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

In view of the above, Applicants respectfully request favorable reconsideration and allowance of all pending claims. If any additional fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 50-0421.

Respectfully submitted,
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